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Patent

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Gohary et al.  
Serial no.: N/A  
Filed: Herewith  
Title: IMPROVED WOOD-PLASTIC COMPOSITES  
Examiner: N/A  
Art Unit: N/A

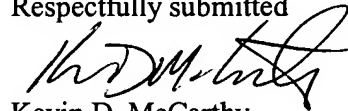
Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir/Madam:

Preliminary Amendment

This preliminary amendment is being submitted to present the claims in courier font and with proper spacing. The amended claims from our printout appear to be misformatted. Accordingly, we are merely correcting the formatting for the USPTO's convenience. These claims have not been amended and start at page 2 of this document. The scope and breadth of the claims have not been, in our opinion, altered.

Respectfully submitted



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1. (Original) An improved wood-plastic composite (WPC) produced from a mixture comprising, wood particles, plastic, and optionally additives, and further comprising an active ingredient that acts as a biocide, and which comprises tetrabromobisphenol (TBBA) or a homologue or derivative thereof, wherein said active ingredient is added to said mixture together with said wood particles during and/or before production of the WPC.

2. (Original) An improved WPC according to claim 1, wherein the active ingredient is added to the mixture together with the wood particles according to one or more methods selected from the group consisting essentially of:

- impregnation of said wood particles with said active ingredient;
- coating of said wood particles with a solution or emulsion containing said active ingredient;
- soaking said wood particles in a solution or emulsion containing said active ingredient; and
- mixing said wood particles together with said active ingredient in particulate and/or powder form.

3. (Original) An improved WPC according to claim 1, wherein the coating of the wood particles with a solution or emulsion containing the active ingredient is accomplished by spraying said wood particles with said solution or emulsion.

4. (Original) An improved WPC according to claim 1, wherein the active ingredient is Tetrabromobisphenol A (TBBA).

5. (Original) An improved WPC according to claim 1, wherein the active ingredient is a solid.

6. (Original) An improved WPC according to claim 1, wherein the active ingredient is dissolved in a solvent.

7. (Original) An improved WPC according to claim 6, wherein the solvent is an aqueous solvent.

8. (Original) An improved WPC according to claim 7, wherein the aqueous solvent comprises water, sodium hydroxide (NaOH), and sodium dithionite ( $\text{Na}_2\text{S}_2\text{O}_4$ ).

9. (Original) An improved WPC according to claim 6, wherein the solvent is an organic solvent.

10. (Original) An improved WPC according to claim 9, wherein the organic solvent is selected from the group consisting essentially of alcohols, hydrocarbons, toluene and ketones.

11. (Original) An improved WPC according to claim 1, wherein the active ingredient is TBBA at a final concentration in said WPC in the range of 0.5% (W/W) to 20% (W/W).

12. (Original) An improved WPC according to claim 1, wherein the active ingredient is TBBA at a final concentration in said WPC in the range of 1% (W/W) to 2.5% (W/W).

13. (Original) A method of producing an improved wood-plastic composite (WPC) containing TBBA, comprising the steps of:

1. applying TBBA to wood particles by:
  - a. mixing particles or a powder containing TBBA with the wood particles; or
  - b. impregnating and/or coating said wood particles with TBBA by means of vacuum impregnation; or
  - c. soaking said wood particles in a solution or emulsion containing TBBA, or spraying said wood particles with such a solution or emulsion; and
2. combining the wood particles to which TBBA has been applied with the plastic component and optional additives.